

## **FORWARD**

In the interest of acquisition reform and the new DOD initiatives, we are committed to performing program **insight** management via Joint Integrated Product Teaming (JIPT). This arrangement facilitates a total "Team" effort in providing a quality product. The JIPT philosophy reflected in this Tri-Lateral Memorandum of Understanding stresses the use of integrated teams consisting of the Joint Program Office, DCMC, **and** Rockwell International Space Systems Division. All issues and their resolutions are intended to be resolved at the lowest possible IPT level, and elevated only when absolutely necessary. All team member's common objective is the unqualified success of the GPS Block IIF Program.

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DATE:\_\_\_\_\_

James B. Armor, Col., USAF  
System Program Director  
NAVSTAR GPS Joint Program Office

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DATE:\_\_\_\_\_

Alfred E. Mason, Col., USAF  
Commander, DCMC Santa Ana

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DATE:\_\_\_\_\_

Richard P. Arras  
Vice President, Rockwell International Space Systems  
Division, GPS Block IIF Program Director

**MEMORANDUM OF UNDERSTANDING**

**DRAFT**

**BETWEEN**  
**GLOBAL POSITIONING SYSTEM (GPS) BLOCK IIF Team OF THE NAVSTAR**  
**GPS JOINT PROGRAM OFFICE**  
**AND**  
**GPS IIF TEAM OF DEFENSE CONTRACT MANAGEMENT COMMAND SANTA ANA-ROCKWELL**  
**AND**  
**GPS IIF TEAM FOR ROCKWELL INTERNATIONAL SPACE SYSTEMS DIVISION**

**PROGRAM:** NAVSTAR Global Positioning System (GPS) Block IIF Program

**PURCHASING ACTIVITY:** Air Force Space and Missile Systems Center (SMC), NAVSTAR GPS Joint Program Office (JPO) -- SMC/CZ, Los Angeles AFB, CA

**CONTRACT ADMINISTRATION ACTIVITY:** Defense Contract Mgt.. District West (DCMDW), DCMC Santa Ana-Rockwell

**CONTRACTOR:** Rockwell International Space Systems Division, Seal Beach, CA

## **1. SCOPE**

This Memorandum of Understanding (MOU) applies to contract F04701-96-C-0025.

The GPS Block IIF contract terms and conditions take precedence should inconsistencies occur between this MOU and the contract.

The Contract Administration Office will perform the contract administration functions identified in FAR/DFARS and additional functions delegated by the PCO in accordance with FAR 42.202(c).

## **2. PURPOSE**

This MOU delineates the roles and responsibilities between the NAVSTAR Global Positioning System (GPS) Block IIF team of the GPS Joint Program Office (JPO), the GPS Block IIF team of Defense Contract Management Command (DCMC) Santa Ana-Rockwell, and the GPS Block IIF team of Rockwell International Space Systems Division for conducting the GPS Block IIF effort. Nothing in this agreement is intended to relieve the parties of any part of the GPS IIF contract, specifically with regard to the changes clause.

## **3. APPROACH**

The overall GPS Block IIF management philosophy is that of **insight** management. This philosophy permits the contractor maximum flexibility to efficiently and effectively produce the Block IIF space and control segments while providing the JPO with clear visibility into cost, schedule, technical performance, and risk. The key to this philosophy is the Integrated Product Development concept, implemented via the GPS Block IIF Joint Integrated Product Team (JIPT). Although composed of diverse organizations with different intermediate-term objectives, the JIPT will be a tight-knit team whose members are mutually accountable to one another and whose common objective is the unqualified success of GPS and the Block IIF program. All conflicts and issues resolutions are intended to be handled at the lowest possible IPT level prior to escalation to the next IPT level.

"Unqualified success" means sustaining GPS with on-time delivery of supportable Block IIF satellites and ground systems, which meet all requirements within cost constraints. Achieving this goal will satisfy the individual objectives of the various team members.

Rockwell has performance responsibility for the GPS Block IIF. If the satellites do not meet the minimum on-orbit performance requirements, the contractor is responsible under the Required On-Orbit Life (ROOL) (Special Contract Requirement H.5) to provide replacement SVs or a liquidated amount as set forth in the ROOL provision. To enable this, the Government has allowed the contractor to control the detailed design configuration by following the principles of Clear Accountability in Design (CAID). This philosophy states that Rockwell controls the design and is clearly accountable for all decisions. The Government will not formally or informally direct Rockwell unless its design decisions impact system or interface requirements. However, the Government team members will do everything possible to help Rockwell succeed and ensure the ultimate success of the GPS Block IIF program. A mutually acceptable system for verification and documentation of IMP completions will be jointly developed between the contractor, JPO, and DCMC. This system will be applied for verification of all key program events.

#### **4. ROLES AND RESPONSIBILITIES**

##### **4.1 NAVSTAR GPS JPO**

The Block IIF Integrated Product Team (IPT) structure will join with the GPS Block IIF contractor's IPT structure. Other personnel will join contractor IPTs as required to form the Block IIF Joint IPT (JIPT).

###### **4.1.1 Collocated Block IIF Team Members**

The primary purpose of collocating Block IIF IPT members in Rockwell's facility is to improve communication and involvement between all members of the JIPT and to minimize duplication of effort. Collocated team members will be located at Rockwell's Seal Beach facility. In general, collocated IPT members at Seal beach will:

- A. Actively participate in JIPT meetings, which Rockwell will chair.
- B. Translate and clarify user requirements.
- C. Identify and assist in issues resolution and concerns. Attempt to resolve such issues and concerns at the lowest possible level within the JIPT. Forward disconnects to the next higher level IPT.
- D. Establish and assist in trade studies.
- E. Participate in contractor program Configuration Control Board (CCB) activities.
- F. Coordinate and provide technical support for contractor activities.
- G. Participate in Rockwell's internal and external reviews, as appropriate.
- H. Evaluate and review submitted Engineering Change Proposals (ECPs), Cost Change Proposals and waivers/deviations for technical needs and compliance.
- I. Provide clarification on security classification issues.
- J. Participate in all Functional Configuration Audits/Physical Configuration Audits.
- K. Provides recommendation to DCMC on classification of ECPs (Class I vs. Class II).
- L. Evaluate and assist in specification reviews, including System (A Spec), Segment A & B specifications, and proposed IRS changes.

###### **4.1.1.1 Block IIF Program Manager**

The JPO Block IIF Program Manager (as a collocated IPT member at Seal beach) will:

- A. Direct the activities of the JPO GPS Block IIF IPT members.
- B. Meet on a regular basis with the DCMC Program Integrator (PI) and the Rockwell Block IIF Program Manager to discuss and coordinate efforts related to the program.
- C. Serve as an Award Fee Review Board member.
- D. Serve as the Block IIF single business decision authority for Government issues, making every effort to ensure that Rockwell succeeds in delivering Block IIF Satellites within cost and on schedule.

#### **4.1.1.2 Procurement Contracting Officer / Contract Negotiator**

The Procurement Contracting Officer (PCO), supported by the Contract Negotiator(s), is responsible for ensuring performance of all necessary actions for effective contracting, ensuring compliance with the terms of the contract, and safeguarding the interests of the United States in its contractual relationship. In order to perform these responsibilities, JPO contracting will be allowed wide latitude to exercise business judgment. The PCO will:

- A. Meet on a regular basis with DCMC and Rockwell contracting personnel to discuss and coordinate efforts related to the program.
- B. Ensure inputs from the DCMC Administrative Contracting Officer (ACO) are received prior to the approval of major waivers, deviations, modifications and Class I Engineering Change Proposals (ECP).
- C. Work closely with the ACO to ensure all DCMC comments pertaining to award fee determination and interim letters are incorporated into final decisions.

#### **4.1.1.3 Block IIF Cost Monitor**

The Block IIF contract requires two Contract Data Requirements List submittals for cost reporting, the Cost Performance Report (CPR) and the Contract Funds Status Report (CFSR). The Block IIF Business Manager uses the CFSR to track Rockwell expenditures and forecast funding requirements. The CPR documents cost and schedule performance on the cost plus efforts. Government access to additional cost/schedule performance data is through the GEMS/RITIS system. The Block IIF Cost Monitor will:

- A. Meet on a regular basis with the DCMC and Rockwell business management personnel to discuss and coordinate efforts related to the program.
- B. Work closely with the DCMC representatives to analyze variance analysis reports submitted by Rockwell.
- C. Provide the JIPT with the JPO evaluation of the contractor submitted CPRs and CFSRs as requested.
- D. Notify the JIPT of significant problems when they are identified.

#### **4.1.1.4 The Aerospace Corporation**

The Aerospace Corporation will provide the special systems engineering and interpretation function to SMC and IPT, and is an integral member of the GPS JPO.

**4.1.1.5 Systems Engineer Lead:** The Systems Engineer addresses all Block IIF system level issues and external interfaces. This individual will perform day-to-day technical insight into Rockwell's program, serving as a working member of the JIPTs, co-chair the ICWG, and be the primary interface to CCB. The Systems Engineer will help identify the GPS Block IIF Top Ten Risks and work closely with Rockwell to resolve them.

**4.1.1.6 SV Lead:** The Space Vehicle Lead will perform day-to-day technical and programmatic input to the Space vehicle IPT by serving as a working member of the team and by participating in the identification, analysis, and resolution of design and implementation issues. Key duties include facilitating communications with other JIPT members, other customers, and other agencies.

**4.1.1.7 Control System Lead:** The CS Lead will perform day-to-day technical insight into the contractor's program, serving as a working member of the contractor's IPTs. This individual will validate Rockwell's design in accordance with system requirements. The CS Lead will communicate new operations requirements, upgrades and modifications, and sustainment activities pertaining to the CS between the JPO IPT members located at Peterson AFB and Falcon AFB, SMC/CW, AFSPC (DR, 50SPW, 2SOPS, 1SOPS), and the Air Logistics Center (ALC).

**4.1.1.8 GFP Lead:** The GFP Lead will provide day-to-day input and serve as a working member of the Team and participate in the analysis and resolution of all team issues. The GFP Lead's key duties include supporting the resolution of all GFP issues and other missions involving the Department of Energy, Sandia National Laboratories, and Los Alamos National Laboratories. The GFP Lead will oversee all activities concerning GFP and other missions/users on Block IIF to include the design, production, delivery, integration, test, storage, and handling of all GFP Government Furnished Property.

**4.1.1.9 Operations Lead:** The Operations Lead will provide day-to-day technical and programmatic input to the Operations IPT by serving as a working member of the team by participating in the identification, analysis, and resolution of operations issues. This individual will facilitate communication with the Air Force organizations at Peterson and Falcon AFB, SMC/CW, AFSPC (DR, 50SPW, 2SOPS, 1SOP), the Booster Program Office, and the 45th Apace Wing at Cape Canaveral AFS.

**4.1.1.10 Systems T & E Lead:** The Systems T & E Lead will serve as a point of contact for test and evaluation planning and management. This individual will participate in the development of detailed test plans and procedures, and will be present for significant space vehicle, OCS, storage system, and component and subsystem tests and will share with the contractor any concerns and make recommendations. The Systems T & E Lead will review for approval contractor procedures for hazardous operations to be conducted in Government facilities.

**4.1.1.11 Logistics Lead:** The Block IIF Logistics Manager is the Government representative to Rockwell's Logistics IPT and acts as the liaison between Rockwell and all Government agencies (i.e., AETC, TOMA, etc.). Responsibilities are pursuant to the logistics application of the GPS development and support effort. The logistic resources cover ILS Management, maintenance planning, manpower and personnel, supply support, support equipment, technical data, training and training support, computer resources support, facilities, package handle, store and transport (PHS&T), and design interface.

**4.1.1.13 Navigation Payload Lead:** TBD

**4.1.1.14 Integration Lead:** TBD

**4.1.1.15 Information Systems Lead:** TBD

## **4.2 DCMC IPT**

The activities defined herein are intended to define the working relationships and establish the necessary authority to effectively monitor and administer the GPS IIF Program. The DCMC IPT will promote open communication between Rockwell and the Government and will facilitate the insight

philosophy. DCMC's IPT will integrate with Rockwell's IPT and the NAVSTAR JPO IPT to become a part of the Block IIF JIPT.

#### **4.2.1 Program Integrator**

The DCMC Program Integrator (PI) will be the focal point and primary representative for DCMC functions and responsibilities on the GPS Block IIF Program. The PI will:

- A. Meet on a regular basis with the JPO Block IIF Program Manager and Rockwell's Block IIF Program Manager to discuss and coordinate efforts related to the program, as well as participate in team reviews.
- B. Plan, coordinate and control DCMC activities and ensure DCMC allocates sufficient resources to accomplish tasks defined in this MOU. Highlight unfavorable trends and participate in JIPT corrective action.
- C. Be a member of Rockwell's GPS Block IIF Configuration Control Board and participate in meetings.
- D. Monitor Rockwell's performance to meet contract requirements. Monitor technical performance measures and programmatic metrics.
- E. Serve as a an Award Fee Review Board member.

#### **4.2.2 Administrative Contracting Officer / Contract Administrator**

The Administrative Contracting Officer (ACO), supported by the Contract Administrator(s), is the DCMC focal point for Block IIF contracting, pricing and property administration functions. The ACO will perform contract administration functions in accordance with FAR 42.302 and this MOU, as well as perform system wide block changes. The ACO will:

- A. Meet on a regular basis with the JPO and Rockwell contracting personnel to discuss and coordinate efforts related to the program.
- B. Negotiate and execute contractual documents for settlement of efforts delegated to the ACO for definitization.
- C. Respond to requests from the Procuring Contract Officer concerning approval of major waivers, deviations, modifications, and Class 1 Engineering Change Proposals.
- D. Coordinate with the PCO prior to the issuance of modifications that result in the deobligation of funds.
- E. Provide procurement assistance to administer GFP under contracts and subcontracts, inclusive of management of government property.
- F. Provide award fee inputs.

#### **4.2.3 Quality Assurance Team**

As members of the JIPT, the Block IIF Quality Assurance (QA) Team members will support verification of the satisfaction of Block IIF Integrated Master Plan (IMP) entrance and exit criteria, culminating in end item acceptance by the Government. As necessary, the team members will

coordinate Quality related activities at other locations (El Paso, Downey, Colorado Springs). The QA Team will include Hardware and Software Quality Assurance Representatives (QARs).

#### **4.2.3.1 Hardware Quality Assurance at Seal Beach and El Paso Facilities.**

As members of the JIPT, the Hardware QAR(s) will:

- A. Participate as a member of the JIPT to maintain visibility into contractor's QA processes.
- B. Participate in joint technical surveillance (e.g. signing DD-250s, issuing GIDEP alerts, maintaining visibility of design, development, test and evaluation). Work with the JIPT to resolve unfavorable trends during SV assembly and test. Participate in ECP and waiver/deviation reviews.
- C. As deemed necessary by the JIPT, issue delegations to DCMC personnel at subcontractor sites to perform IPT insight.
- D. Monitor and assist with preparation of shipping and transportation of GFP.
- E. Provide award fee inputs.

#### **4.2.4 Software Quality Assurance**

As members of the JIPT, the Software QAR(s) will:

- A. Maintain visibility into contractor's software QA processes. Support the JPO's Operational Control Segment Project Engineer. Participate in process reviews and software development methodologies, and work to resolve unfavorable trends during assembly and test. Participate in ECP and waiver/deviation preparation. Review documentation against the IMP.
- B. Participate as a member of the System Engineering, Integration and Test IPT's Software Working Group.
- C. Participate in process review of software development to ensure compliance to contract and program goals as well as the contractor's software development methodologies. *Monitor* verification and testing. Collect data for process measurement and trend analysis.
- D. As deemed necessary by the JIPT, issue delegations to DCMC personnel at subcontractor sites to perform IPT insight.
- E. Provide award fee inputs.

#### **4.2.5 Engineering Support**

As a member of the JIPT, the DCMC GPS Block IIF Project Engineer(s) will:

- A. Meet on a regular basis with the JPO and Rockwell engineering personnel to discuss and coordinate engineering efforts and technical progress related to the program. Participate in internal and external reviews.

- B. Maintain insight to contractor design, test, development, production, and qualification to ensure contractual compliance. Review test data as necessary. Participate in ECP reviews.
- C. Monitor, evaluate and participate in Rockwell's engineering management systems that relate to design, development and production in the areas of internal configuration and data management efforts as well as technical management of subcontractor efforts.
- D. Participate in *system-level* Functional Configuration Audits/Physical Configuration Audits.
- E. Analyze and reconcile Rockwell's monthly CPR and CFSR. Evaluate Rockwell's cost plus Estimate at Completion Work with DCAA as necessary. Identify potential problem areas and evaluate impacts to the program. Perform Eng. analysis of Rockwell cost proposals.
- F. Provide award fee inputs.

#### **4.2.6 Industrial Specialist**

As a member of the JIPT, the Industrial Specialist will:

- A. Maintain insight in all phases of the program. Participate in JIPT associated meetings.
- B. Monitor detailed schedules.
- C. Evaluate Rockwell's manufacturing systems, identify problems and opportunities for improvement, and monitor and status contractor's progress.
- D. Perform progress payment reviews.
- E. Monitor and evaluate subsequent changes in contractor plans, programs, and action for manufacturing
- F. Provide award fee inputs.

#### **4.2.7 Logistician**

As a member of the JIPT, the DCMC GPS Block IIF Logistician will:

- A. Meet on a regular basis with JPO and Rockwell logistics personnel to discuss and coordinate efforts related to the program.
- B. Maintain insight into Rockwell's Integrated Logistics Support related activities and work with other team members to resolve any problems.
- C. Provide award fee inputs.

#### **4.3 Rockwell IPT**

Rockwell will facilitate Government insight into the critical aspects of the GPS Block IIF program by:

- A. Fully integrating Government representatives with all IPTs and collocating them with the teams, allowing them to participate in daily team activities.
- B. Having Government representatives serve as members of critical technical forums to reach early consensus on major technical issues.



- C. Providing the Government IPT members electronic access to program information via RITIS/GEMS.
- D. Providing Government representatives access to IPT members from associate contractors and subcontractors with appropriate Rockwell participation.
- E. Providing office space and facilities for non-Rockwell IPT members in the IPT work areas, to include computers, voice mail, and E-Mail accounts.
- F. Notifying JPO and DCMC of all upcoming major reviews and prospective visitor lists.
- G. Chairing all JIPT meetings.

## **5. COMMUNICATIONS**

GEMS/RITIS is the primary means of JIPT communications for submittal of contractual documentation, formal and informal correspondence, reference material and other electronic data. The JPO is responsible for managing GEMS, whereas Rockwell is responsible for managing RITIS. Rockwell is the system administrator for the GFP server and is responsible for maintaining the system.

## **6. TERMS OF AGREEMENT**

This agreement is effective upon signature by the NAVSTAR GPS System Program Director, the DCMC Commander, and the Rockwell Block IIF Program Manager. This agreement is for the duration of the GPS Block IIF Program unless modified or terminated by mutual agreement of all parties. The office of primary responsibility is DCMC. DCMC, the JPO, and Rockwell will review this agreement semiannually.

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
Alphronzo Moseley, Lt Col USAF  
NAVSTAR Global Positioning System GPS IIF Program Manager

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
William E. Bushek  
DCMC Santa Ana-Rockwell GPS IIF Program Integrator

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
Richard P. Arras, Vice President, Rockwell International Space Systems Division  
GPS Block IIF Program Director